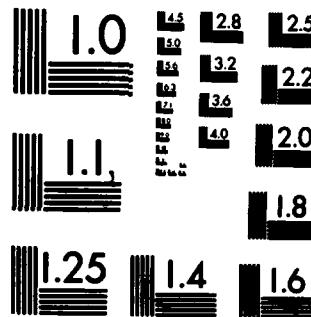


AD-A128 276 193188 MLRS MISSILE NUMBER BN-198 BN-158 BN-170 BN-209
BN-194 BN-215 ROUN. (U) ARMY ELECTRONICS RESEARCH AND
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METEOROLOGICAL DATA REPORT

19318B MLRS

Missile Number BN-198, BN-158, BN-170,
BN-209, BN-194, BN-215

Round Number V-443/OT-49 Thru V-448/OT-54

4 March 1983

by

DONALD C. KELLER
Program Support Coordinator
Phone Number (505) 679-9568
AVN Number 349-9568

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ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

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UNITED STATES ARMY ELECTRONICS COMMAND

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SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER DR 1294	2. GOVT ACCESSION NO. <i>A128-276</i>	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) 19318B MLRS Missile Number BN-193, BN-158, BN-170, BN-209, BN-194, BN-215 Round Number V-443/OT-49 Thru V-448/OT-54		5. TYPE OF REPORT & PERIOD COVERED
7. AUTHOR(s) White Sands Meteorological Team		6. PERFORMING ORG. REPORT NUMBER DA Task 1F665702D127-02
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19. KEY WORDS (Continue on reverse side if necessary and identify by block number)		
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INTRODUCTION

10313B MLRS, Missile Numbers BN-193, BN-153, BN-170, BN-209, BN-194 and BN-215, Round Numbers V-443/OT-49 Thru V-448/OT-54, were launched from LC-33, White Sands Missile Range (WSMR), New Mexico, at 1617:01, 1617:06, 1617:10, 1617:15, 1617:19 and 1617:24 MST, 4 Mar 83. The scheduled launch times were 1600 MST with a 4.5 second separation.

DISCUSSION

Meteorological data were recorded and reduced by the White Sands Meteorological Team, Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico. The data were obtained by the following methods:

1. Observations

a. Surface

(1) Standard surface observations to include pressure, temperature ($^{\circ}\text{C}$), relative humidity, dew point ($^{\circ}\text{C}$), density (gm/m^3), wind direction and speed, and cloud cover were made at the LC-33 Met Site at T-0 minutes.

(2) Anemometer data were provided from existing pole-mounted and tower-mounted anemometers at LC-33. Monitor of wind speed and direction from one anemometer was also provided in the launch control room.

b. Upper Air

(1) Low level wind data were obtained from pilot-balloon observations at:

SITE AND ALTITUDE

LC-33 2 KI

(2) Air structure data (rawinsonde) were collected at the following Met Sites.

SITE AND TIME

WSD 1231 MST

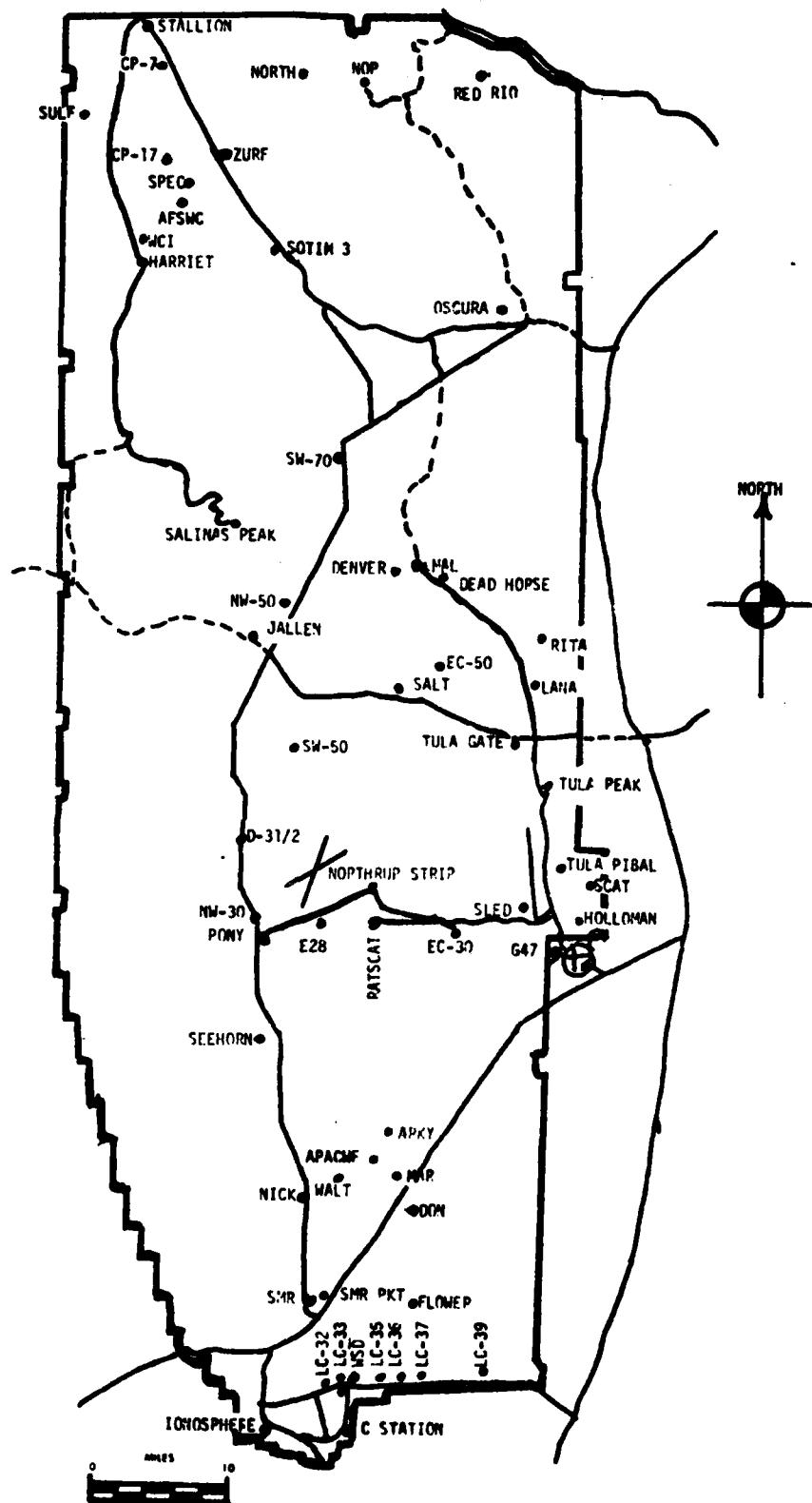
WSD 1341 MST

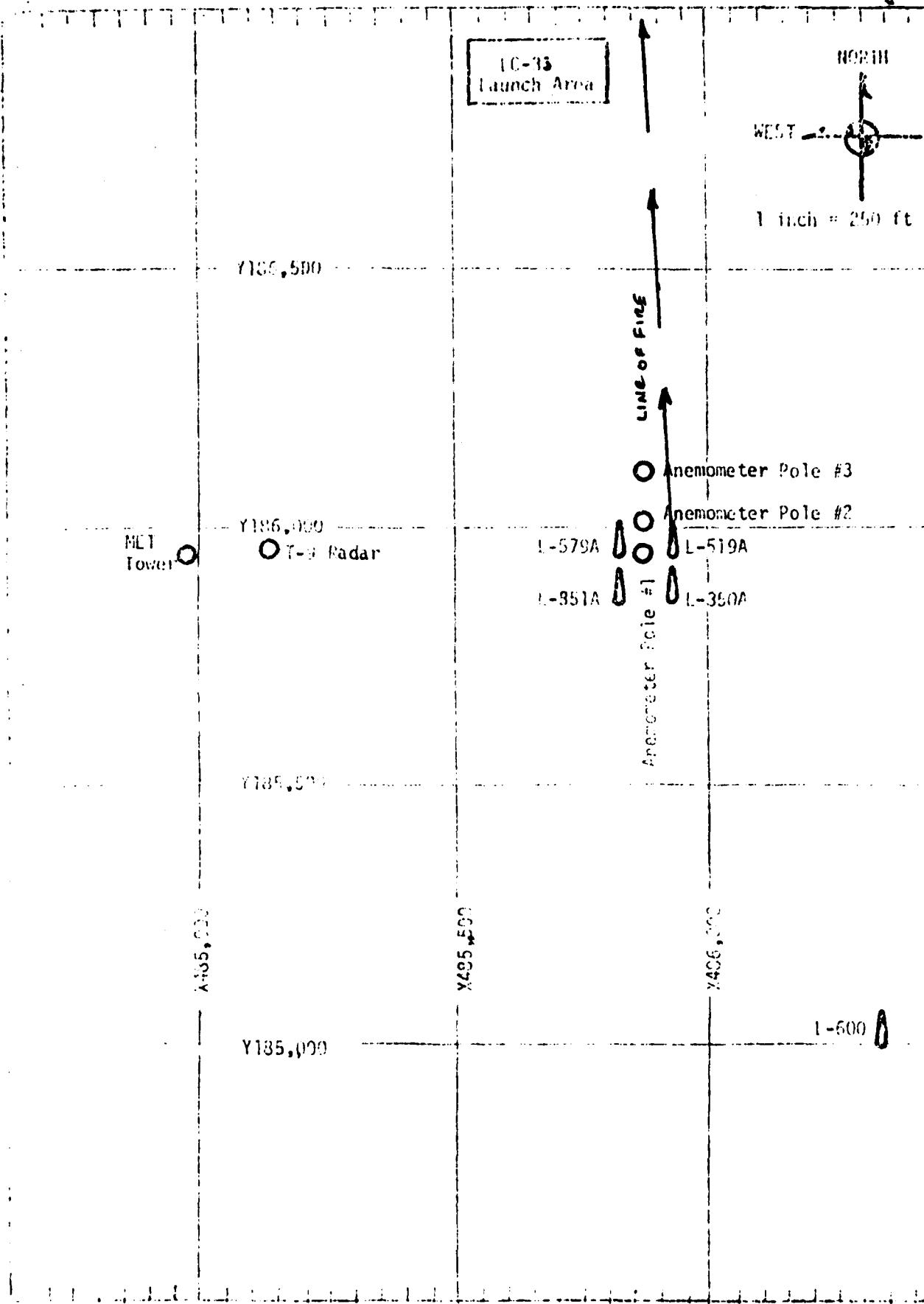
LC-37 1413 MST

WSD 1537 MST

F		mission For	
1		PRA&I	
2		T&B	
3		Wind	
4		Clouds	
5		Other	
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428		Other	
429		Other	
4			

WSMR METEOROLOGICAL SITES





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PSYCHOPERTHIC CONVERSATION

TIME: MST	1617
DRY BULB TEMP.	12.8
WET BULB TEMP.	6.8
WET BULB DEPR.	6.0
DEW POINT	0.8
RELATIVE HUMID.	44

TABLE 2 LC-33 FIXED POLE ANEMOMETER MEASURED WINDS

POLE #1			POLE #2			POLE #3		
T-TIME SEC	DIR DEG	SPEED KNOTS	T-TIME SEC	DIR DEG	SPEED KNOTS	T-TIME SEC	DIR DEG	SPEED KNOTS
T -30	246	30	T -30	234	21	T -30	252	22
T -20	237	25	T -20	249	19	T -20	250	19
T -10	241	17	T -10	235	23	T -10	250	22
T .0	249	26	T .0	234	16	T .0	250	28
T +10	261	24	T +10	241	25	T +10	250	23

TABLE 3 LC-33 METEOROLOGICAL TOWER ANEMOMETER MEASURED WINDS (202 FT TOWER)

LEVEL #1, 12 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #2, 62 FEET X484,982.64, Y185,057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KNOTS	T-TIME SEC	DIR DEG	SPEED KNOTS
T -30	267	21	T -30	248	25
T -20	268	22	T -20	253	25
T -10	259	15	T -10	248	27
T .0	259	26	T .0	258	32
T +10	273	28	T +10	253	30

LEVEL #3, 102 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #4, 202 FEET X484,982.64, Y185,057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KNOTS	T-TIME SEC	DIR DEG	SPEED KNOTS
T -30	268	28	T -30	261	33
T -20	242	24	T -20	254	22
T -10	252	23	T -10	265	24
T .0	265	34	T .0	261	36
T +10	270	28	T +10	267	32

TABLE 4

T-TIME PILOT-BALLOON MEASURED WIND DATA

DATE 4 March 1983

SITE: LC-33
 TIME: 1617 MST
 WSTM COORDINATES:
 X: 404,837.34
 Y: 134,124.44
 H: 3,975.57

SITE:
 TIME
 WSTM COORDINATES:
 X=
 Y=
 H=

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE	260	26
150	260	26
210	260	26
270	262	29
330	264	35
390	265	39
500	265	43
650	266	50
800	267	47
950	268	35
1150	272	35
1350	273	35
1550	283	34
1750	289	34
2000	295	31

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE		
150		
210		
270		
330		
390		
500		
650		
800		
950		
1150		
1350		
1550		
1750		
2000		

TABLE 5

AIMING COMPUTER NET MESSAGES

4 March 1983

WSD 1231 MST
METCM1324064
041950122865
00409012 23660865
01432030 28410854
02450020 28090829
03466021 27720789
04463023 27250742
05493022 26810697
06499034 26460653
07493030 26050612
08500039 25710573
09516031 25350537

WSD 1341 MST
METCM1324064
042070122864
00427018 28650864
01454022 28390853
02463032 28070828
03472031 27710788
04482032 27280741
05483042 26920696
06486033 26470653
07494036 26090612
08491041 25740573
09491042 25370536

LC-37 1413 MST
METCM1324063
042120124862
00267008 28720862
01327007 28410852
02410017 28180826
03435030 27820787
04467027 27340740
05463031 26870695
06497032 26440652
07503044 26060611
08502046 25780572
09495042 25410535

WSD 1537 MST
METCM1324064
042260122863
00471020 28820863
01478038 28570853
02469028 28260827
03471023 27870788
04484035 27390741
05511033 27070696
06522027 26630653
07523029 26180612
08512036 25750573
09491042 25330536

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4th. 45. 1231 162. 114
ASC 516. 60.

TABLE 6
CHART 1. *Estimated Data
of the
Wolff's
Galaxy*

FEELING DOCUMENTARIES

TABLE 6

PRESSURE, MILLIBARS	TEMPERATURE, MIL. FEET	ALTITUDE, MIL. FEET	TEMPERATURE, MIL. FEET	TEMPERATURE, MIL. FEET	TEMPERATURE, MIL. FEET
800.0	5089.0	12.0	2.6	50.0	50.0
800.0	4462.1	9.2	-1.2	48.0	48.0
700.0	6289.9	3.0	-2.4	64.0	64.0
700.0	6737.1	-1.9	-2.3	97.0	97.0
700.0	6600.5	-5.4	-5.7	98.0	98.0
670.7	10031.3	-7.7	-10.0	98.0	98.0
653.8	11521.0	-8.2	-10.5	98.0	98.0
637.1	12017.1	-11.1	-12.6	98.0	98.0
619.1	12739.2	-12.5	-13.4	68.0	68.0
599.2	15271.0	-17.5	-23.5	54.0	54.0
559.0	19538.9	-18.3	-23.9	65.0	65.0
526.4	16750.7	-20.7	-29.9	43.0	43.0
500.0	17994.3	-23.8	-39.9	21.0	21.0

STATION NUMBER 3-89-00 FIFTH MSL
AWARE 0.5 1231 hrs. MSL
AWARE 0.0 418

TABLE 7

TABLE 7

ORIGINATOR	PRESSURE	TEMPERATURE	WFL. HUM.	DIFFUSITY	SUPPLY	WFL. DATA	INFIX
ALTIMETER	MM. FLEI	MM. FLEI	PERCENT	MM. CIRC.	SOURCE	WFL. CITION	04.
455 FLEI	511 FLEI	511 FLEI	DEGR.EC.	METER	WFL.15	WFL.15	HEFFUCTION
5989.0	864.8	12.8	20.1	50.0	1050.2	654.0	12.0
4810.0	864.5	12.7	20.6	50.0	1050.1	654.7	12.0
4510.0	848.4	9.1	-1.2	48.3	1045.1	655.3	12.5
2600.0	833.2	7.6	-1.4	52.7	1031.3	653.6	13.6
5500.0	811.7	6.1	-1.7	57.1	1017.7	651.4	15.2
902.0	802.0	4.7	-2.1	61.5	1004.3	650.1	17.2
6500.0	786.0	3.2	-2.2	67.5	990.4	649.4	19.4
1060.0	773.3	1.8	-2.0	75.8	977.5	646.8	20.7
1500.0	759.6	1.3	-2.0	79.1	964.0	647.1	21.8
8000.0	744.6	-1.1	-2.2	92.5	950.9	643.4	22.9
8500.0	730.5	-2.5	-2.0	97.2	937.8	641.7	23.7
9100.0	716.6	-3.8	-4.1	97.5	924.0	640.1	270.6
9300.0	702.9	-5.1	-6.4	97.9	911.6	638.0	273.8
10000.0	689.4	-6.5	-6.6	98.0	899.1	637.1	277.3
10500.0	676.1	-7.4	-7.7	99.0	884.7	636.7	280.6
11100.0	662.1	-8.0	-8.2	98.0	869.4	635.0	282.5
11500.0	650.2	-9.0	-9.1	95.7	855.8	633.8	286.5
12000.0	637.0	-11.0	-12.4	99.2	846.1	631.2	279.0
12500.0	625.0	-11.9	-16.3	69.6	832.6	630.0	278.2
13000.0	612.6	-12.6	-19.0	59.9	819.2	628.8	278.5
13500.0	600.5	-13.0	-20.0	59.7	806.1	627.6	279.8
14000.0	588.5	-14.9	-21.0	49.5	793.3	626.3	280.4
14500.0	576.0	-15.9	-22.0	59.3	780.6	625.0	281.4
15000.0	563.3	-16.9	-23.0	59.1	768.2	624.4	283.3
15500.0	554.0	-18.0	-25.0	62.7	755.4	622.8	286.3
16000.0	542.8	-19.1	-26.5	57.9	743.4	621.1	288.4
16500.0	531.8	-20.2	-28.5	48.0	732.0	619.8	289.0
17000.0	521.0	-21.3	-31.6	38.6	720.1	618.3	290.7
17500.0	510.3	-22.6	-35.4	27.7	709.5	616.8	291.4

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STATION AL11144-3489.0 FIFTY
4 MAR. 1931 1231 hrs. 111
ASCESSION NO. 110

ORIGIN OF COORDINATES

TABLE 8

10

STATION ALTITUDE 3989.00 FEET MSL
4 MAR. 1341 HRS MST
ASCENSION NO. 119

SIGNIFICANT LEVEL DATA
0630020114
WHITE SANDS
TABLE 9

OF OFFICE COORDINATES
32°40.043' LAT NFG
106°37.033' LONG NFG

PRESSURE GEOMETRIC MILLIBARS MSL	ALTITUDE FEET	TEMPERATURE DEGREES CENTIGRANE	RFL. HUM. PERCENT
863.5	3989.0	12.8	47.0
850.0	4420.6	8.9	49.0
826.2	5190.0	6.7	56.0
777.7	6809.9	2.3	67.0
756.6	7538.0	.4	75.0
729.7	8488.7	-2.1	86.0
700.0	9571.3	-3.8	67.0
654.9	11284.7	-8.7	75.0
616.9	12798.3	-12.2	97.0
587.9	14003.7	-14.7	97.0
500.0	17970.1	-23.4	97.0

STATION ALTITUDE 3989.00 FEET MSL
 4 MAR. 1341 14RS MST
 ASCENS. 110. 119

UPPER AIR DATA
 0630020110
 WHITE SANDS
 TABLE 10

WEATHER CONDITIONS
 32.40043 LAT NG
 106.37033 LON NG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL.HUM. PERCENT	SOUND METER	SPEED KNOTS	WIND DATA DIRECTION DEGREES(TN)	INFLX OF REFRAC
3989.0	863.5	12.8	100	1048.8	659.4	240.0	1.000266
4000.0	863.2	12.7	101	1048.7	654.7	240.1	1.000266
4500.0	847.5	8.7	102	1045.0	654.8	246.3	1.000259
5000.0	832.0	7.2	104	1031.1	653.2	251.5	1.000256
5500.0	816.7	5.9	107	1017.2	651.5	255.9	1.000253
6000.0	801.6	4.5	102	1003.3	649.9	259.7	1.000249
6500.0	786.6	3.1	104	989.6	648.3	262.8	1.000245
7000.0	772.1	1.8	102	976.0	646.8	265.5	1.000242
7500.0	757.7	.5	105	962.3	645.2	267.9	1.000238
8000.0	743.4	-0.8	108	948.7	643.7	269.3	1.000235
8500.0	729.4	-2.1	102	935.3	642.1	270.5	1.000232
9000.0	715.5	-2.9	104	920.5	641.1	271.7	1.000229
9500.0	701.9	-3.7	107	895.9	640.1	272.8	1.000218
10000.0	688.4	-5.0	108	873.0	639.4	273.4	1.000214
10500.0	675.2	-6.5	108	850.6	638.7	273.9	1.000211
11000.0	662.2	-7.9	117	836.4	635.0	274.3	1.000207
11500.0	649.4	-9.2	123	815.6	633.4	274.7	1.000204
12000.0	636.7	-10.4	123	802.8	632.0	275.1	1.000201
12500.0	624.2	-11.5	125	789.9	630.6	275.5	1.000198
13000.0	611.9	-12.6	130	817.1	629.3	275.9	1.000195
13500.0	599.8	-13.7	140	804.2	628.0	276.3	1.000191
14000.0	586.0	-14.7	151	791.6	626.7	276.6	1.000187
14500.0	573.1	-15.8	162	778.9	624.3	276.6	1.000183
15000.0	564.5	-16.9	172	766.5	624.0	276.5	1.000180
15500.0	555.1	-18.0	183	754.3	622.6	276.5	1.000176
16000.0	541.9	-19.1	194	742.3	621.3	276.5	1.000173
16500.0	530.9	-20.2	205	730.5	619.9	276.5	1.000170
17000.0	520.2	-21.3	216	718.9	618.5	276.5	1.000167
17500.0	509.7	-22.4	227	707.5	617.2	276.5	1.000164

STATION ALTITUDE 3989.00 FEET MSL
4 MAR. 43 1341 HRS MST
ASCENSION NO. 119

MANDATORY FFLS
0618Z 114
WHITE STATUS
TABLE 11

WFOE TIR COORDINATES
32.40043 LAT NFG
106.37033 LON NFG

PRESSURE MILLIBARS	FEET	TEMPERATURE		WFL.HUM. PERCENT	WIND DATA	
		AIR DEGREE DEGREES	DEGREE CENTIGRADE		DIRECTION DEGREES (TN)	SPEED KNOTS
450.0	4418.	8.9	-1.2	44.	245.4	19.4
400.0	6051.	4.4	-2.3	62.	260.0	25.5
750.0	7762.	-0.2	-3.6	74.	268.8	32.5
700.0	9562.	-3.8	-9.0	67.	273.0	33.1
650.0	11464.	-9.1	-12.3	78.	274.6	36.1
600.0	13480.	-13.6	-14.0	97.	276.3	36.5
550.0	15613.	-18.3	-18.6	97.		
500.0	17946.	-23.4	-23.7	97.		

STATION ALTITUDE 4051.87 FEET MSL
4 MAR. 63 1415 HRS. MST
ASCENSION NO. 32

SIGNIFICANT LEVEL DATA
16301400Z
LC-37

TABLE 12

GEODETIC COORDINATES
32.40175 LAT NFG
106.31232 LON NFG

PRESSURE GRADIENT	TEMPERATURE	DEFL. HUM.
ALTITUDE	AIR DEPOINT	PFRCENT
MILLIBARS MSL FEET	DEGREES CENTIGRADE	
862.0	4051.4	13.1
855.9	4246.4	10.2
850.0	4435.3	9.8
836.4	5070.1	8.3
763.2	7135.1	2.1
716.6	8992.3	-2.9
700.0	9601.5	-4.4
662.4	11020.8	-8.7
653.2	11377.7	-8.4
636.0	12055.6	-10.4
593.0	13813.2	-14.5
584.6	14168.9	-14.5
563.0	15996.6	-18.1
534.8	16369.7	-19.4
500.0	18000.2	-24.0
		-26.3
		A1.0

STATION ALTITUDE 1051.37 FEET MSL
4 MAR. 13 1413 HRS MST.
ASCENSION NO. 32

UPPER AIR DATA
0630180032
LC-37

TABLE 13

GEODETIC COORDINATES
32°40'17.5" LAT NFG
106°31'23.2" LDN NFG

GEODETIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREE CENTIGRADE	WIND DIRECTION PERCENT	HUM. PERCENT	SPD. OF WIND METER	SPD. OF WIND METER	WIND DATA DIR. SPEED KNOTS	WIND DATA DIR. SPEED KNOTS	WIND DATA DIR. SPEED KNOTS	WIND DATA DIR. SPEED KNOTS
GEODETIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREE CENTIGRADE	WIND DIRECTION PERCENT	HUM. PERCENT	SPD. OF WIND METER	SPD. OF WIND METER	WIND DATA DIR. SPEED KNOTS	WIND DATA DIR. SPEED KNOTS	WIND DATA DIR. SPEED KNOTS	WIND DATA DIR. SPEED KNOTS
4051.4	862.0	13.1	1.5	45.0	1045.9	660.1	150.0	0.0	1.0000264	
4500.0	848.0	9.6	-1.0	44.5	1042.1	655.0	177.0	6.9	1.0000257	
5000.0	832.5	8.5	-1.8	40.4	1027.4	654.6	208.0	7.8	1.0000255	
5500.0	817.2	7.1	-2.1	51.7	1013.3	653.0	228.1	10.3	1.0000251	
6000.0	802.1	5.8	-2.6	54.7	999.5	651.4	239.5	13.6	1.0000247	
6500.0	787.3	4.4	-3.2	57.8	986.0	649.8	246.3	17.2	1.0000243	
7000.0	772.8	3.0	-3.8	60.9	972.6	648.1	250.7	21.0	1.0000240	
7500.0	750.4	1.6	-4.1	65.6	959.5	646.5	253.8	24.8	1.0000236	
8000.0	744.1	1	-4.1	73.4	946.6	644.7	256.0	28.7	1.0000234	
8500.0	730.1	-1.4	-4.2	81.3	933.9	642.9	258.2	29.2	1.0000231	
9000.0	716.4	-2.9	-4.5	89.0	921.4	641.2	260.5	28.4	1.0000228	
9500.0	702.7	-4.2	-5.7	89.0	908.1	639.6	262.9	27.7	1.0000223	
10000.0	689.2	-5.6	-6.8	91.5	895.6	637.9	266.3	27.9	1.0000219	
10500.0	676.0	-7.1	-7.8	94.7	883.5	636.0	270.2	29.2	1.0000215	
11000.0	662.9	-8.6	-8.9	97.9	871.5	634.2	273.8	30.5	1.0000211	
11500.0	650.1	-8.9	-9.1	98.1	855.3	633.9	277.5	33.6	1.0000207	
12000.0	637.4	-10.7	-11.4	94.4	844.8	631.6	280.6	37.0	1.0000202	
12500.0	624.8	-11.8	-12.4	95.3	831.7	630.2	282.0	40.2	1.0000198	
13000.0	612.5	-12.8	-13.2	96.7	818.6	629.0	282.5	43.4	1.0000195	
13500.0	600.4	-13.9	-14.1	98.1	805.7	627.7	282.8	45.7	1.0000191	
14000.0	588.6	-14.5	-14.7	98.5	791.7	626.9	282.7	46.9	1.0000187	
14500.0	576.0	-15.2	-15.5	97.5	777.9	625.1	282.6	47.6	1.0000184	
15000.0	563.3	-16.1	-16.5	96.6	765.4	624.9	282.2	46.3	1.0000180	
15500.0	554.0	-17.1	-17.6	95.8	753.0	623.7	281.8	45.0	1.0000177	
16000.0	542.9	-16.1	-16.7	95.0	740.9	622.5	280.3	44.5	1.0000173	
16500.0	531.9	-19.8	-20.8	91.1	727.7	621.4	278.6	44.1	1.0000170	
17000.0	521.1	-21.2	-22.7	87.7	719.9	619.6	278.0	43.6	1.0000166	
17500.0	510.4	-22.6	-23.5	84.4	709.2	618.9	277.4	43.3	1.0000163	
18000.0	500.0	-24.0	-26.3	81.0	698.7	615.1	276.8	42.0	1.0000160	

STATION ALTITUDE 4051.37 FEET MSL
4 MAR. 03 1413 HRS MST
ASCENSION NO. 32

NAVYATCHY LIFFLS,
0610180032
LC-37

GEOPOTENTIAL COORDINATES
32.40175 LAT DFG
106.31232 LON DFG

TABLE 14

PRESSURE GEOPOTENTIAL MILLIBARS	FEET	TEMPERATURE DEGREES CENTIGRADE	AIR DEWPOINT DEGREES	REL. HUM. PERCENT	WIND DATA DIRECTION (DEGREES (TN))	SPEED KNOTS
450.0	4432.	9.8	-1.9	44.	172.5	7.0
400.0	6073.	5.6	-2.7	55.	240.7	14.1
750.0	7790.	.7	-4.1	70.	255.2	27.1
700.0	9572.	-4.4	-5.9	89.	263.4	27.6
650.0	11491.	-8.0	-9.1	98.	277.5	33.6
600.0	13505.	-13.9	-14.1	98.	282.8	45.7
550.0	15662.	-17.5	-18.0	98.	281.3	44.8
500.0	17976.	-24.0	-26.3	81.		

STATION ALTITUDE 3989.00 FEET MSL
N MAR. 13 1537 HRS. MST
ASCENSION NO. 121

SIGNIFICANT LEVEL 11A
630020121
WHITE SANDS

GEODETIC COORDINATES
32.4614° LAT NFG
106.3703° LONG NFG

TABLE 15

PRESSURE (FOMETHIC MILLIHARS MSL FEET)	ALITUDE MILLIHARS MSL FEET	TEMPERATURE AIR DEPOINT DEGREES CENTIGRADE	RFL. HUM. PERCENT
862.8	3989.0	14.2	49.0
850.0	4400.9	10.8	46.0
761.7	7359.2	2.2	68.0
733.1	6369.7	-1.0	-2.9
700.0	9579.3	-2.3	-9.4
657.8	11189.3	-6.7	-13.6
587.4	14053.3	-14.5	-18.2
553.6	15520.3	-18.0	-25.1
520.3	17033.9	-21.9	-22.8
500.0	17994.4	-23.5	-27.0

STATION ALTITUDE 3989.00 FEET ASL
 * MAR. 13 1537 HRS MST
 ASCENSION NO. 121

UPPER AIR DATA
 0630020121
 WHITE SANDS
 TABLE 16

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEPOINT DEGREES CENTIGRADE	WELL-HUM. PERCENT	DENSITY GM/CUBIC METER	SUPERSONIC SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	WIND SPEED KNOTS	INFLUX OF REFRACTION
3989.0	862.8	14.2	3.7	49.0	1042.4	661.5	265.0	20.0
4000.0	862.5	14.1	3.5	48.9	1042.3	661.4	265.0	20.0
4500.0	840.9	10.5	-4	46.7	1037.3	657.0	265.2	21.3
5000.0	831.3	9.1	-7	50.5	1023.5	655.5	265.4	22.6
5500.0	816.1	7.6	-1.0	54.2	1009.9	653.6	265.6	23.8
6000.0	801.1	6.2	-1.5	57.9	996.6	651.9	265.8	25.1
6500.0	786.4	4.7	-2.0	61.6	983.4	650.2	265.9	26.3
7000.0	771.9	3.2	-2.6	65.3	970.5	648.5	267.2	27.6
7500.0	757.6	1.8	-3.0	70.6	957.8	646.7	271.3	28.8
8000.0	743.4	.2	-2.9	80.0	945.2	644.9	275.0	30.2
8500.0	729.5	-1.1	-3.5	83.9	931.9	643.3	278.3	31.7
9000.0	715.7	-1.7	-6.1	71.9	916.5	642.5	281.2	31.4
9500.0	702.1	-2.2	-8.9	59.9	901.3	641.8	284.1	31.3
10000.0	688.7	-3.4	-10.5	58.1	888.3	640.3	287.1	31.2
10500.0	675.5	-4.8	-11.8	58.0	875.8	639.6	289.2	30.8
11000.0	662.6	-6.2	-13.1	58.0	863.6	638.9	290.7	30.1
11500.0	649.8	-7.5	-14.0	59.6	851.2	635.3	292.2	29.3
12000.0	637.1	-8.9	-14.8	62.2	838.9	633.6	293.4	28.9
12500.0	624.6	-10.3	-15.6	64.9	826.8	632.0	292.6	30.1
13000.0	612.4	-11.6	-16.4	67.5	814.9	630.3	291.9	31.3
13500.0	600.4	-13.0	-17.3	70.1	803.2	628.7	291.3	32.5
14000.0	588.6	-14.4	-18.2	72.7	791.6	627.0	289.4	34.0
14500.0	576.9	-15.6	-19.7	70.3	779.6	625.5	287.3	35.6
15000.0	565.4	-16.8	-21.4	67.2	767.6	624.0	285.4	37.3
15500.0	554.1	-18.0	-23.0	64.1	755.8	622.6		
16000.0	542.6	-19.2	-22.8	72.9	744.2	621.0		
16500.0	531.6	-20.5	-22.6	82.1	732.8	619.4		
17000.0	521.0	-21.8	-22.8	91.4	721.7	617.8		
17500.0	510.3	-22.7	-24.8	82.8	709.4	616.7		

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

STATION ALTITUDE 3989.00 FEET MSL
4 MAR. 83 1537 IRS WEST
ASCENSION NO. 121

MANDATORY LEVELS
063000Z 121
WHITE SANDS

WEATHER COORDINATES
12.40041 LAT NFG
106.37033 LONG NFG

TABLE 17

PRESSURE (GEOPOTENTIAL MILLIBARS	FLEET	TEMPERATURE DEGREES	AIR DEPOINT CENTIGRADE	HGT. HUM. PERCENT	WIND DATA DIRECTION (TN) DEGREES (TN)	SPEED KNOTS
850.0	4398.	10.0	-3	46	265.2	21.0
800.0	6043.	6.0	-1.5	5A	265.8	25.2
750.0	7763.	.9	-2.9	7h	273.3	29.5
700.	9570.	-2.3	-9.4	5A	284.6	31.3
650.0	11483.	-7.5	-14.0	60	292.2	29.4
600.0	13507.	-13.0	-17.3	70	291.3	32.5
550.0	15661.	-18.4	-23.0	67		
500.0	17970.	-23.5	-27.0	71		